



Attachment to
Paper No. 10

(Modified) PTO/SB/08A-B (10-96)
Approved for use through 10/31/99, OMB 0651-0031

Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	09/495,668
		Filing Date	February 1, 2000
		First Named Inventor	Sergey A. Selifonov
		Group Art Unit	1631
		Examiner Name	Kim, Y.
		Attorney Docket Number	02-109510US

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
AA	5,603,793			Yoshida et al.	02-18-1997
AB	6,117,679			Stemmer	09-12-2000
AC	6,096,548			Stemmer	08-01-2000
AD	6,132,970			Stemmer	10-17-2000

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office	Number	Kind Code (if known)		
AE	WO	95/15972			Thomas Jefferson University	06-15-1995
AF	WO	95/22625			Affymax Technologies	08-24-1995
AG	WO	96/33207			Glaxo Group Limited	10-24-1996
AH	WO	98/49350			Regents of the University of Minnesota	11-05-1998
AI	WO	00/42560			Maxygen, Inc.	07-20-2000
AJ	WO	00/42561			Maxygen, Inc.	07/20/2000
AK	WO	00/53744			Diversa Corporation	09-14-2000
AL	WO	00/58517			Diversa Corporation	10-05-2000

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					T
AM	Giver and Arnold "Combinatorial protein design by <i>in vitro</i> recombination" <i>Current Opinion in Chemical Biology</i> (1998) 2:335-338						
AN	Zhao et al., "Molecular evolution by staggered extension process (StEP) in vitro recombination" <i>Nature Biotechnology</i> vol. 16 (1998) pp. 258-261						
AO	Crameri and Stemmer "10 ²⁰ -Fold aptamer library amplification without gel purification" <i>Nucleic Acid Research</i> (1993) vol. 21, no. 18 pp. 4110.						

Examiner Signature		Date Considered	4-29-03
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<i>YK</i>	AP	Feng and Doolittle "Progressive Sequence Alignment as a Prerequisite to Correct Phylogenetic Trees" <i>J. Mol. Evol.</i> 35:351-360 (1987)
	AQ	Higgins and Sharp "Fast and sensitive multiple sequence alignments on a microcomputer" <i>CABIOS</i> 5:151-153 (1989)
	AR	Sun "Modeling DNA Shuffling" <i>Journal of Computational Biology</i> 6(1):77-90
	AS	Altschul et al., "Basic Local Alignment Search Tool" <i>J. Mol. Biol.</i> 215:403-410 (1990)
	AT	Boehnke et al., "Statistical Methods for Multipoint Radiation Hybrid Mapping" <i>Am. J. Hum. Genet.</i> (1987) 49:1174-1188
	AU	Brunner and Bujard "Promoter recognition and promoter strength in the <i>Escherichia coli</i> system" <i>EMBO J.</i> 6:3139-3144
	AV	Chang et al., "Evolution of a cytokine using DNA family shuffling" <i>Nature Biotechnology</i> (1999) 17:793-797
	AW	Christians et al., "Directed evolution of thymidine kinase for AZT phosphorylation using DNA family shuffling" <i>Nature Biotechnology</i> (1999) 17:259-264
	AX	Crameri and Stemmer "Combinatorial multiple cassette mutagenesis creates all the permutations of mutant and wildtype cassettes" <i>BioTechniques</i> (1995) 18:194-195
	AY	Crameri et al., "Construction and evolution of antibody-phage libraries by DNA shuffling" <i>Nature Medicine</i> (1996) 2:100-103
	AZ	Crameri et al., "Improved Green Fluorescent Protein by Molecular Evolution Using DNA Shuffling" <i>Nature Biotechnology</i> (1996) 14:315-319
	BA	Crameri, A. et al., (1997) "Molecular evolution of an arsenate detoxification pathway by DNA shuffling." <i>Nature Biotechnology</i> 15:436-438
	BB	Crameri, A. et al., (1998) "DNA shuffling of a family of genes from diverse species accelerates directed evolution." <i>Nature</i> 391:288-291
	BC	Gates, C.M. et al., (1995) "Affinity selective isolation of ligands from peptide libraries through display on a lac repressor 'headpiece dimer'." <i>Journal of Molecular Biology</i> 255:373-386
<i>YK</i>	BD	Irvine et al., "SELEXION: Systematic Evolution of Ligands by Exponential Enrichment with Integrated Optimization by Non-linear Analysis" <i>J. Mol. Biol.</i> (1991) 222:739-761

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	BE	Josson et al., "Quantitative sequence-activity models (QSAM)-tools for sequence design" <i>Nucleic Acids Res.</i> (1993) 21(3):733-739
	BF	Kelly et al., "A Test of the Markovian Model of DNA Evolution" <i>Biometrics</i> (1994) 50(3):653-664
	BG	Knaus and Bujard "P _L of coliphage lambda: an alternative solution for an efficient promoter" <i>EMBO</i> (1998) 7(9):2919-2923
	BH	Lander and Waterman "Genomic Mapping by Fingerprinting Random Clones: A Mathematical Analysis" <i>Genomics</i> (1988) 2:231-239
	BI	Lanzer and Bujard "Promoters largely determine the efficiency of repressor action" <i>Proc. Natl. Acad. Sci.</i> (1988) 85:8973-8977
	BJ	Minshull and Stemmer "Protein evolution by molecular breeding" <i>Current opinion in Chemical Biology</i> (1999) 3:284-290
	BK	Ness, J. et al., (1999) "DNA shuffling of subgenomic sequences of subtilisin." <i>Nature Biotechnology</i> 17:893-896
	BL	Stemmer "Rapid evolution of a protein <i>in vitro</i> by DNA shuffling" <i>Nature</i> (1994) 370:389-391
	BM	Stemmer (1995) "Searching Sequence Space" <i>Bio/Technology</i> 13:549-553
	BN	Stemmer (1995) "The Evolution of Molecular Computation." <i>Science</i> 270:1510
	BO	Stemmer (1996) "Sexual PCR and Assembly PCR." In: <i>The Encyclopedia of Molecular Biology</i> . VCH Publishers, New York. pp. 447-457.
	BP	Stemmer and Soong (1999) "Molecular breeding of viruses for targeting and other clinical properties." <i>Tumor Targeting</i> 4:1-4
	BQ	Sun and Waterman "A Mathematical Analysis of <i>in vitro</i> Molecular Selection-Amplification" <i>J. Mol. Biol.</i> (1996) 258:650-660
	BR	Patten, P.A. et al., (1997) "Application of DNA Shuffling to Pharmaceuticals and Vaccines." <i>Current Opinion in Biotechnology</i> 8:724-733.
✓	BS	Zhang, J. et al., "Directed evolution of an effective fucosidase from a galactosidase by DNA shuffling and screening" <i>Proceedings of the National Academy of Sciences, USA</i> (1997) 94:4504-4509

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